

REMARKS

The Applicant respectfully requests reconsideration and allowance of claims 17 through 38 in view of the above amendments and the following arguments.

I. AMENDMENTS TO THE CLAIMS

Claims 17-38 are pending. All the pending claims are presently amended to change the objected-to term “plate-like” and instead use the term “plate-shaped.” The Applicant’s specification uses the term interchangeably to describe the annular, circular element 11 in Figures 1-3 (see, e.g., Applicant’s specification at page 4). No change of scope is intended by the amendment and no new matter has been added. Claims 17 and 27 are also amended to move the fourth paragraph up to before the third paragraph, thereby providing proper antecedent basis ordering as required by U.S. practice. No change of scope is intended by this amendment, and no new matter has been added. Please note that the presently pending claims, as properly numbered in Applicant’s Amendment of April 14, 2008, are claims 17-38.

II. THE CLAIMS ARE DEFINITE UNDER 35 U.S.C. § 112

The Office Action rejected claims 17 through 38 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention. In particular, the phrase “plate-like” was objected to as being indefinite, the basis for the rejection being that “the claims include elements not actually disclosed (those encompassed by “plate-like”), thereby rendering the scope of the

1 claims unascertainable.” The Office Action cites MPEP 2137.05(d), which prohibits the use of
2 example language in a claim (“for example,” “such as”). The Applicant assumes from this
3 rejection that the Examiner is interpreting “plate-like” to mean “like a plate, for example.”

4 While the Applicant amends the term herein, it should be noted for the record that the
5 term “plate-like” is used repeatedly in the Applicant’s specification to describe element 11, and
6 therefore the term did not seek to cover something that was not disclosed. However, to further
7 prosecution in this case, an amendment is made to change the term to “plate-shaped.” The
8 Applicant submits that this amendment should result in no prosecution history estoppel because
9 the terms are used interchangeably to refer to the plate-shaped element 11 in the Figures, and the
10 term “plate-like” as used in the specification and claims never was used in any manner that
11 would suggest it as an example adjective as would trigger application of MPEP 2173.05(d). That
12 is, “plate-like” and “plate-shaped” both describe the properties of the depicted element 11, not
13 that they are an example. The amendments are therefore made in the interests of furthering
14 prosecution and there is no change in scope by these amendments.

15 The Applicant’s therefore submit that the amended term is plainly not objectionable and
16 requests the rejection under § 112 be withdrawn.

17
18 III. THE CLAIMS ARE NOT ANTICIPATED BY THE CITED REFERENCES

19 The Office Action rejected claims 17 through 38 under 35 U.S.C. § 102(b) as being
20 anticipated by U.S. Patent No. 4,564,088 to Takahashi et al. (“Takahashi”) and U.S. Patent No.

1 2,9888,058 to Warnecke (“Warnecke”). The Applicant respectfully submits that the claims as
2 amended are not anticipated by Takahashi and Warnecke.

3
4 Claim 17 and 27

5 The Office Action rejected claims 17 and 27 as anticipated by Takahashi, and also
6 independently anticipated by Warnecke. The Applicant respectfully traverses these rejections in
7 view of the arguments below.

8 Before addressing the substance of the references, the Applicant wishes to point out that
9 the rejection does not address all of the claim limitations. “For a prior art reference to anticipate
10 in terms of 35 U.S.C. §102, every element of the claimed invention must be identically shown in
11 a single reference. These elements must be arranged as in the claim under review, ... but this is
12 not an ‘ipsissimis verbis’ test.” *In re Bond*, 15 USPQ2d 1566, 1566 (Fed. Cir. 1990), *internal*
13 *citations omitted*. “All words in a claim must be considered in judging the patentability of that
14 claim against the prior art.” *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA
15 1970).

16 In the Office Action, the rejection of claims 17 and 27 over Takahashi (and similarly that
17 over Warnecke) is provided in it’s entirety in merely three lines, which ignore most of the
18 limitations of the claims. The rejection reads:

Takahashi et al. discloses a braking device comprising a housing (8) with a stop area, a
plate element (60) constructed such that when a pressure space is acted on, an increase in braking
forces can be transferred to an object wherein the plate includes radial slits.

1 (Office Action at 2.) The Applicant will address the prior art references in more detail below,
2 but as a preliminary matter, the Applicant submits that the rejection is inadequate under the law
3 because it does not address most of the limitations of the claims. (Even if a § 112 rejection is
4 made, all elements of the claim should be considered. *See, e.g.*, MPEP 2143.03.) Some of the
5 several claim limitations that are not addressed in the rejection are (1) the “bending area,” and its
6 various properties including (2) that the bending area is convex in a starting state; (3) most
7 importantly, the construction of the pressure space as bounded by the plate-like element and the
8 housing (*see* currently amended claim 17, for example, “a pressure space is formed between the
9 convex side of the at least one bending area of the at least one plate-shaped element and the
10 housing and the pressure space can be acted on with excess pressure of a pressure medium which
11 can be supplied to the housing”); and (4) the sealing elements disposed along the surface of the
12 plate-shaped element.

13 Referring now to the prior art, the first cited reference Takahashi discloses a braking
14 device for clamping a shaft 35 extending through a braking cylinder consisting of a housing 4, 6,
15 8, 32, and 18. The elements 6, 8 of this housing enclose two ring-shaped pistons 10, 12 which
16 are slidably guided in hollow-cylindrical portions of the elements 6, 8. At the outer front side
17 each of the ring-shaped pistons 10, 12 engage a radial clamp member 60 at the radial outer end
18 thereof. The inner end of each radial clamp member which reveal a ring-shaped conical form acts
19 on a brake shoe 50 for braking or clamping the shaft 38.

20 In Takahashi, the axial inner front side of each piston 10, 12 and the element 18 define
21 inner pressure chambers 22, 24. These inner pressure chambers 22, 24 are in communication

1 with port 16 whereas port 14 is in communication with outer pressure chambers 28, 30 defined
2 by the axial outer front faces and the inner surfaces of the hollow-cylindrical housing elements 6,
3 8. Thus, pressurizing the inner pressure chambers 22, 24 the two pistons are forced to move in
4 the axial outward directions, thereby reducing the conical angle of the radial clamp member 60,
5 which leads to increasing forces acting upon the clamping shoes in a radial inward direction.
6 Conversely, pressurizing the outer pressure chambers 28, 30 leads to a movement of the ring-
7 shaped pistons in a radial inward direction, thus releasing the shaft 38.

8 The main difference between this breaking and/or clamping device and the present in-
9 vention is that according to Takahashi, moveable ring-shaped pistons act onto the ring-shaped
10 clamping members, where movements of the pistons are created by forces acting onto the pistons
11 due to gas pressure acting on axial front surfaces of the pistons. (*See* Takahashi at col. 6, lines 1-
12 15, for example.) To the contrary, in the clamping or braking device according to the claimed
13 invention the gas pressure acts directly onto the surface of the plate-shaped elements. The
14 claimed pressure space is formed “between the convex side of the at least one bending area ...
15 and the housing.” For this purpose, the claims to 17 and 27, one or more sealing elements are
16 disposed along the surface of the at least one plate shaped element, at least in the area of the slits,
17 inside or outside, relative to the pressure space. Hence, no movable piston is necessary for
18 realizing a braking or clamping device according to the present invention. Further, in Takahashi
19 the pressure chambers 28, 30 adjacent to the plate element has open-air pressure when the brake
20 is activated—the braking forces are applied through the piston as activated by the inner pressure
21 chambers 22, 24. (*See* Takahashi at col. 6, lines 1-15 and lines 16-30.)

1 Independent claims 17 and 27 clearly identify that the pressure chambers are defined by
2 the corresponding surface of the plate-shaped elements. Thus, the construction as well as the
3 function of the braking device according to the invention is different from the Takahashi device.
4 Takahashi therefore lacks all of the limitations (1)-(4) listed above. There is, in fact, a pressure
5 chamber adjacent to the plate in Takahashi, (outer pressure chambers 28, 30) but that chambers
6 have open-air pressure when braking force is applied, and are not used to apply braking force.
7 These chambers instead are used to move the piston and remove braking forces. (*See* Takahashi
8 at col. 6, lines 16-30 and col. 7, lines 10-20, for example.)

9 The same argument is true for the cited Warnecke reference, which is cited in the Office
10 Action as a separate 102 anticipation reference using the same language as used in the Takahashi
11 rejection. That is, the main difference between the claimed invention and the Warnecke
12 reference is that in Warnecke, moveable ring-shaped pistons act onto the ring-shaped clamping
13 members, where movements of the pistons are created by forces acting onto the pistons due to
14 gas pressure acting on axial front surfaces of the pistons. (*See* Warnecke at col. 1, line 69 – col.
15 2, line 14, for example.) Warnecke discloses a locking means for a fluid pressure actuated
16 device also including an annular piston 12. The lower axial front surface of the ring-shaped
17 piston 12 acts upon a similar ring-shaped conical clamping element. The radial inward end of
18 this ring-shaped element acts upon the shaft of a clamping head 5. The axial upper front surface
19 of the ring-shaped piston 12 partly defines a pressure chamber 13. As a result, also with this
20 device a moveably guided ring-shaped piston is necessary acting upon a ring shaped clamping
21 element.

Both Takahashi and Warnecke definitely do not disclose any hint to omit the movable piston and to use the ring-shaped clamping element together with one or more sealing elements for partly defining a pressure chamber so that the pressure forces act directly upon the surface of the clamping element. Thus, the subject-matters of claims 17 and 28 as on file are novel and non-obvious over the cited prior art.

The Dependent Claims

The Office Action rejected dependent claims 18-26 and 28-38 as being anticipated under § 102 by Takahashi and Warnecke, but does not identify the limitations of these claims anywhere in the art (Office Action at 2). “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Again, “[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art.” *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). The Applicant submits that this rejection is improper for failing to address the individual claim limitations of any dependent claim. Further, claims 18-26 and 28-38 are allowable at least because they depend from allowable claims as discussed above. The Applicant therefore requests the rejection be withdrawn and the Applicants provided their allotted opportunity to respond (non-final action) should specific prior art be found to reject these claims.

IV. CONCLUSION

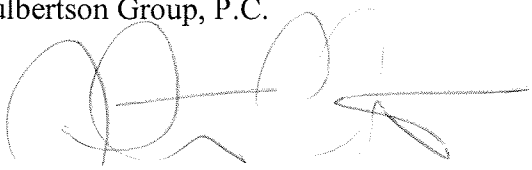
For all of the above reasons the Applicant respectfully requests reconsideration and allowance of claims 17 through 38.

If any issue remains as to the allowability of these claims, or if a conference might expedite allowance of the claims, the Examiner is asked to telephone the undersigned attorney prior to issuing a further action in this case.

Respectfully submitted,

The Culbertson Group, P.C.

Dated: 2/5/08

By: 

Nathan H. Calvert, Reg. No. 48,990
1114 Lost Creek Boulevard, Suite 420
Austin, Texas 78746
512-327-8932
ATTORNEY FOR APPLICANT